

water. Body weights were measured and recorded weekly. SPSS Version 16 was used for statistical analysis.

Results: At the end of 8th week, a significant difference in weight was observed between HFD group and the other groups. In comparison with HFD group, L-Carnitine added to HFD, inhibited body weight gains by 5% ($p=0.023$) at the end of 12th week.

Conclusions: Findings of this experimental study showed that L-Carnitine could help to decelerate weight gain and control diet induced obesity in rats.

Keywords: Obesity, L-Carnitine, Weight gain

Investigation of probiotic bacteria *Lactobacillus casei* visibility in enriched BAF cheese with *Spirulina platensis*

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Background: *Spirulina platensis* has been used for many years as human food because of its nutritional value such as high protein content (50-60%), vitamins, essential amino acids, minerals and essential fatty acids. The purpose of the present study was to investigate viability of probiotic bacteria *Lactobacillus casei* in enriched BAF cheese with *Spirulina platensis*.

Method: Experimental manufacture of probiotic BAF cheese was performed in Pegah Fars Company. Probiotic BAF cheese was enriched with three concentrations of *Spirulina* (0.5, 1.0 and 1.5%) and 2% *Cuminum cyminum*, as a taste modulator of *Spirulina* and probiotics were counted during 60 days.

Results: Probiotic count of 0.5, 1.0 and 1.5% *S. platensis* powder was 4.1×10^9 , 5.05×10^9 and 6.75×10^9 , respectively.

Conclusion: Since in most products the best sufficient count of probiotics at the end of the shelf-life is 10^7 , so the results of this research show great viability of probiotics. As well, this enriched cheese is very useful in terms of nutritional value.

Keywords: *Spirulina*, probiotic, cheese, cumin

Evaluation effect of work shift on body weight of male workers referred to industrial medicine center

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Background: Excess body weight and related health problems can have significant impact on worker productivity. Objectives: This study investigated the effect of work shift on body weight in male workers referred to industrial medicine center of Razi hospital.

Methods: In this cross-sectional research, 5248 male workers referred to industrial medicine center of Razi hospital in 2010 year were studied. Weight and height were measured with precision of 100 g and 1 cm, respectively, then body mass index (BMI) was computed. Statistical analysis of data was performed using the SPSS # 18 software and descriptive tests and ANOVA followed by Scheffe with a significance level of $P \leq 0.05$ in a variety of work shifts were: 59.7% in day shift, 67.2% in rotate shift and 55.2% in aghmari (14 days work and 14 days rest).

Results: In this study the mean of age was 32.87 ± 6.9 years. The prevalence of overweight and obesity ($BMI > 25 \text{ kg/m}^2$) in a variety of work shifts were: 59.7% in day shift, 67.2% in rotate shift and 55.2% in aghmari (14 days work and 14 days rest). ANOVA test showed significant difference between groups considering BMI ($p < 0.05$) and rotate shift workers

had higher BMI than other groups.

Conclusions: Rotate shift work may have bad effect on pattern of eating regular and food digestion with change in work and sleep time and in long-term may lead to obesity and comorbidities.

Keywords: work shift, obesity, industrial medicine

Malnutrition Among Iranian Children: Birth Weight, Number of Children at Home and Birth Order

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Background: This cross-sectional study was conducted to investigate the prevalence and predictors of malnutrition indicators such as wasting, stunting, obesity and underweight by birth weight, number of children at home and birth order.

Methods: six suburbs in Qazvin province, Iran. The present study examined 1351 urban and rural children under 6 years old (692 boys and 659 girls). Data on age, weight and height were taken and birth weight, number of children in family, birth order, parental career and educational state and family caretaker were collected by a questionnaire that parents filled in.

Results: The overall prevalence of wasting, stunting, obesity and underweight in this population was 10.3%, 17.5%, 5.8% and 4.8% respectively.

Conclusion: There wasn't any relationship between those three factors and wasting; although stunting was less prevalent in children within 2500-4000 gr birth weight group ($p < 0.007$, p

Keywords: Cross-sectional study; wasting; stunting; obesity; underweight; Iran

Determination of nutritional and food consumption patterns in households in the Kermanshah city after removing of the governmental subsidy

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Background: Changes in policies of some countries in food supply for households may affect their nutritional status. This study aimed to determine the nutritional and food consumption patterns in households in the Kermanshah city; 18 months after the governmental subsidy was removed.

Methods: This study was performed 18 months after the removal of subsidy scheme for milk and bread in 2012. The study was conducted on 250 households randomly from six zone of Kermanshah. Data was collected using demographic and FFQ questionnaires. Linear regression, Spearman correlation, Pearson chi-square, t-test and Chi-prof factor applied for statistical data analysis.

Results: The consumption of all food groups such as bread and cereal group ($P \leq 0.05$) and negatively associated observed with consumption of bread and cereals.

Conclusion: Removing subsidies will affect more on poor families. Before any action to remove food subsidies, government to provide alternative food supply low income families.

Keywords: Subsidies, eating patterns, food groups, dairy